Capital

Architecture | Surveying | Engineering | Project Management

Birkenhead Estate:

Cladding Remediation Project

Design and Access Statement

Rev. B

Property Address:

Birkenhead Estate
Camden
London
WC1H 8BL

For

Camden Council

May 2024
Rev. B 24/05/24

Camden

CONTENTS

Project Title: Design and Access Statement for proposed recladding of 4 blocks at Birkenhead Estate, Camden, London WC1H 8BL.

Client: Camden Council

1.0 INTRODUCTION

The Birkenhead Estate Development comprises four residential blocks nestled in Camden, London at WC1H 8BL.

Figure 1 - Aerial View of Site

1.1 The 4 No. residential blocks addresses, in order from North to South, are as follow:

- Block Riverside, 1-25 Riverside Birkenhead Street, London, WC1 8BP
- Block Riverfleet, 1-24 Riverfleet Birkenhead Street, London, WC1H 8BP
- Block Fleetway, 1-24 Fleetway Birkenhead Street, London, WC1H 8BP
- Block Fleetfield, 1-24 Fleetfield Birkenhead Street, London, WC1H 8BP

1.2 The development consists of four seven-storey multi-occupied residential blocks, originally erected in the 1960s. Each block is served by two fully enclosed stairwells and a single passenger lift. Positioned from North to South on-site, the blocks are named Riverside, Riverfleet, Fleetway, and Fleetfield, with Birkenhead Street serving as the central spine. In total, there are 97 flats across the development. Classified under the Building Safety Act 2022 as a Higher-risk building (HRB) due to its height and multi-occupancy nature, the development meets the criteria for HRB designation.

1.3 The main building masonry fabric has been over-clad at some point in its history with a combustible Expanded Polystyrene (EPS) external wall insulation system with an acrylic render finish.

<u>The building accounts for two principle external wall types:</u>

- Wall Type 1 – Rendered Masonry/ Concrete wall (Thin coat render c.3-7mm thick over Solid brickwork wall and concrete structure)
- Wall Type 2 – External Wall Insulation EWI (Thin coat render c.3-7mm thick, Expanded Polystyrene (EPS) – c.60-70mm thick. Mechanically fixed with plastic head fixings over Masonry wall or concrete framing elements)

- Attachments:

  Typically, each of the four blocks features open deck access balconies on one elevation, private resident's balconies on another, while the remaining two elevations have no attachments.

  The open deck balconies comprise of Coin pattern anti-slip coating roll over a concrete slab with painted metal handrails and balustrades and painted metal mesh panel infill inserts and glazed panels.

  Private recessed balconies comprise of varied floor finish over concrete floor slab with painted metal handrails and balustrades.

1.4 In the aftermath of the Grenfell tragedy, the Ministry of Housing, Communities and Local Government (MHCLG) conducted a comprehensive review of cladding used in high-rise buildings. It was revealed that numerous structures failed to meet the government's safety standards for buildings exceeding 18 meters in height. MHCLG subsequently issued guidelines mandating the use of non-combustible materials for external walls. Our proposed improvements strictly adhere to these regulations, utilising only A1/A2 materials that surpass the requirements of current Building Regulations. Furthermore, our commitment extends to selecting sustainable and recyclable materials wherever feasible. Mineral fibre insulation, for instance, embodies sustainability at its core. Crafted from rock or basalt, an abundant and renewable resource, it underscores our dedication to environmentally responsible construction practices.

1.5 The Building Safety Act 2022 represents a groundbreaking legislative reform, establishing rigorous standards for building safety across all stages from design to occupancy. This landmark legislation heralds revolutionary changes, placing resident rights at the forefront and elevating safety standards nationwide. By offering explicit guidelines for the management of higher-risk buildings, it aims to instill confidence and assurance among occupants. Applicable to all new constructions, the Act imposes additional requirements specifically tailored to higher-risk buildings, further reinforcing its commitment to safety and accountability.

Higher-risk buildings are those in England that are classed as being:

- At least 18 metres in height, or
- At least 7 storeys high, and
- Which contain at least two residential units, including hospitals, care homes and student accommodation

Hotels, prisons, and military accommodation are not classed as higher-risk buildings.

1.6 The following documents forms part of the planning application that have been submitted via Planning portal:

- Cover letter
- Drawings:
  OS Map (at 1:1250 scale)
  Site location plan (at 1:500 scale)
  Existing Elevations (at 1:100 scale)
  Proposed Elevations (at 1:100 scale)
  Drawing Issue Sheet
- Design and access Statement
- Fire Statement
- Schedule of materials and details (included in the Design and Access Statement).

2.0 SITE CONTEXT

The residential blocks are situated in Camden, London WC1H, just south of Kings Cross, at the following addresses:

- Block Riverside, 1-25 Riverside Birkenhead Street, London, WC1 8BP
- Block Riverfleet, 1-24 Riverfleet Birkenhead Street, London, WC1H 8BP
- Block Fleetway, 1-24 Fleetway Birkenhead Street, London, WC1H 8BP
- Block Fleetfield, 1-24 Fleetfield Birkenhead Street, London, WC1H 8BP

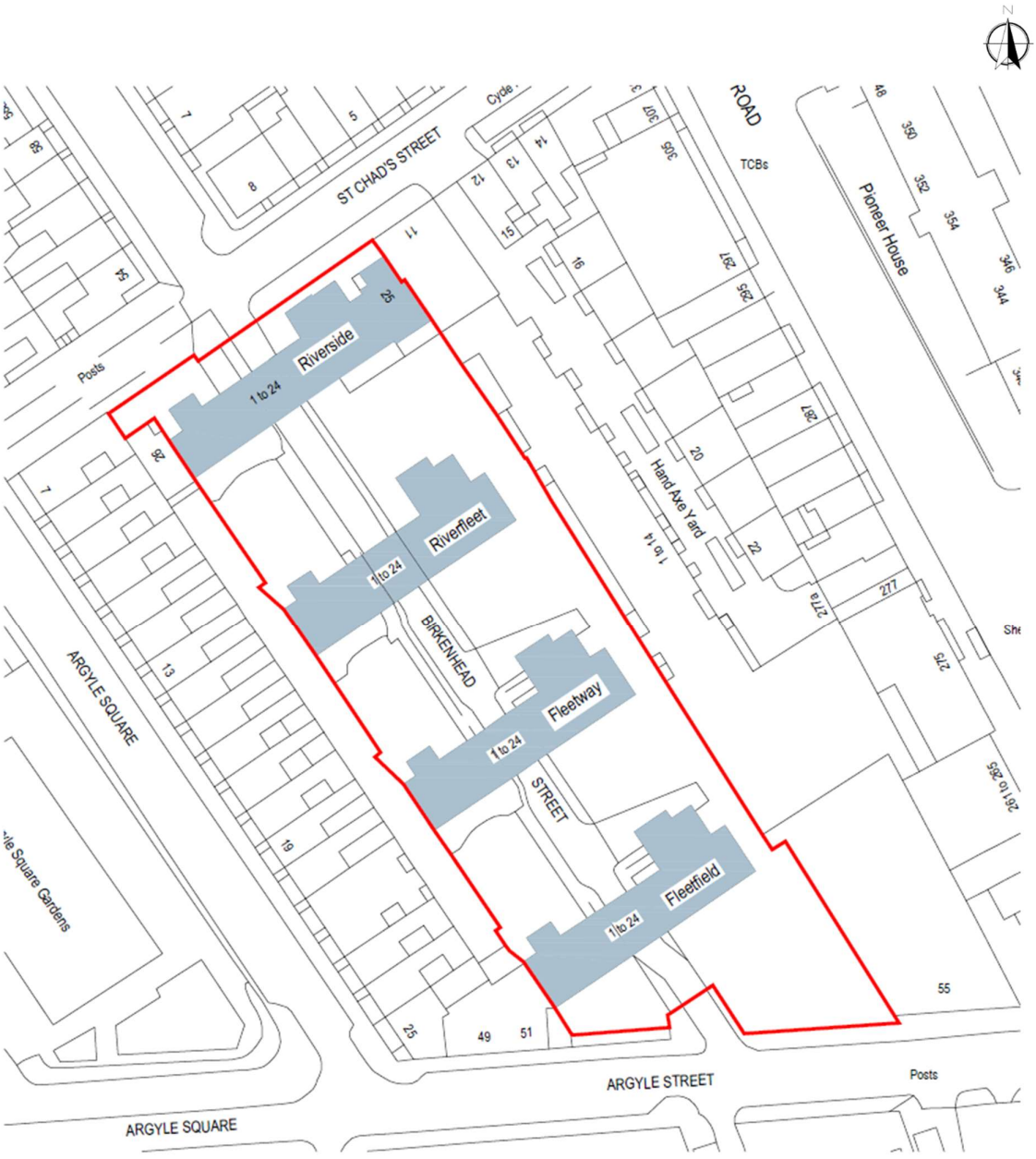

Figure 2 – OS Site Plan

3.0 STATEMENT OF COMMUNITY CONSULTATION

3.1 There has already been an engagement with residents so far, including public meetings and letters sent out. A full resident engagement strategy is under way to ensure appropriate consultation with residents at all stages over and above the statutory requirements.

4.0 PLANNING POLICY CONTEXT

4.1 This section sets out the relevant national, regional, and local planning policy context, before compliance is addressed in **Section 5**.

4.2 The statutory development plan for the site comprises the Camden Local Plan (2017) and The London Plan (2017).

NATIONAL PLANNING POLICY

4.3 The National Planning Policy Framework (NPPF) was published in March 2012 and replaces the previous suite of national Planning Policy Statements and Guidance Notes with one consolidated policy document. It sets out the Government's planning policies for England and how these are expected to be applied, and it is therefore a material consideration in determining planning applications.

4.4 Paragraph 56 of the NPPF (2012) attaches "great importance to the design of the build environment. Good design is a key aspect of sustainable development, is indivisible from good planning, and should contribute positively to making places better for people".

4.5 Paragraph 58 of the NPPF (2012) seeks planning decisions to ensure that development:

- "will function well and add to the overall quality of the area, not just for the short term but over the lifetime of the development;
- respond to local character and history, and reflect the identity of local surroundings and materials...
- create safe and accessible environments ..."

4.6 Paragraph 66 of the NPPF (2012) expects applicants to "work closely with those directly affected by their proposals to evolve designs that take account of the views of the community. Proposals that can demonstrate this in developing the design of the new development should be looked on more favourably. "

4.7 The NPPF (2012) confirms planning plays a critical role in securing reductions in greenhouse gas emissions. Paragraph 96 seeks a low carbon future by "actively supporting energy efficiency improvements to existing buildings".

NATIONAL PLANNING POLICY GUIDANCE

4.8 On 6 March 2014 the DCLG launched the planning practice guidance web-based resource. National Planning Policy Guidance (NPPG) adds further context to the NPPF and it is intended that the two documents should be read together.

4.9 The NPPG states at reference ID: 26-028-20140306 the use of "practical, durable, affordable and attractive materials. Choosing the right materials can greatly help new development to fit harmoniously with its surroundings, colour texture, grain and reflectivity can all support harmony".

REGIONAL PLANNING POLICY

4.10 The regional planning policy for the Site comprises The London Plan (2016).

4.11 Policy 3.5 of The London Plan (2016) seeks housing developments of "the highest quality internally, externally and in relation to their context and to the wider environment...".

4.12 Policy 5.3 of The London Plan (2016) expects development proposals to achieve "the highest standard of sustainable design and construction..." including but not limited to "minimising carbon dioxide emissions, including building and services (such as heating and cooling systems)" and "avoiding internal overheating and contributing to the urban heat island effect".

4.13 Policy 5.4 of The London Plan (2016) " applies the principles in Policy 5.3 (of the London Plan, 2016) to existing building stock where retrofit opportunities arise" (paragraph 5.30 of The London Plan, 2016). The Mayor will support measures through the Building Regulations and other regulatory and funding mechanisms to improve the performance of London's existing buildings.

4.14 Policy 7.13 of The London Plan (2016) confirms "the Mayor will work with relevant stakeholders and others to ensure and maintain a safe and secure environment in London that is resilient against emergencies including fire...Development proposals should contribute to the minimisation of potential physical risks."

EMERGING PLANNING POLICY

4.15 The Mayor is preparing a new London Plan that will replace the currently adopted 2016 consolidation Plan. Consultation on the Draft London Plan (2017) ends 2 March 2018. The Draft London Plan (2017) is a material consideration in planning decisions.

4.16 The Draft London Plan (2017) does not propose any changes that will have a material impact on the re-cladding proposals at Cromer Street Estate.

LOCAL PLANNING POLICY

4.17 The Birkenhead Estate is situated within the Conservation Area CA25, Kings Cross St Pancras. For detailed references, please refer to the Camden Conservation Area Statement 22 document. Specifically, the site falls under **Sub Area 4 - Gray's Inn Road**. This sub area encompasses the region bordered by Pentonville Road and King's Cross Road to the north and east, Swinton Street to the south, and the Birkenhead Street Estate to the west. Notably, King's Cross Road and Gray's Inn Road serve as primary thoroughfares linking King's Cross to the City of London. These streets boast a blend of early 19th-century terraced houses and grand institutional structures.

4.18 West of Gray's Inn Road

The southern side of Chad's Street, particularly adjacent to the Riverside Block, exhibits a fragmented character, lacking consistency in style, scale, or building line. Notably, Nos. 13 and 14 St Chad's Street, both grade II listed properties dating back to circa 1827, exemplify this disparity. These three-storey structures, complete with basements, feature architectural details reminiscent of the terraced buildings on the north side. Notable elements include square-headed windows and iron balconies at the first-floor level.

The Site

The seven-storey blocks comprising the Birkenhead Street Estate are positioned adjacent to each other, defining the western boundary of Sub Area 4. The northernmost block, facing St Chad's Street, features open balconies and projecting stairwells, creating a distinctive architectural profile. In contrast, the southern elevation of the slab block facing Argyle Street showcases regular

fenestration and recessed balconies. Surrounding the estate is a pale orange brick wall with extensive glazing, and Birkenhead Street, now a private road, traverses through the estate. Gated entries to these blocks, situated on Birkenhead Street and at the Argyle Street end, were erected during the late 1980s.

The original brick finish has undergone a transformation, replaced by an External Wall Insulation (EWI) render system. The exact installation date of this retrofit remains unknown; however, photographic evidence from 1988 suggests it occurred post that year, as depicted in Figure 3 below.

Figure 3 – Birkenhead Street Estate Block 1988

CAMDEN LOCAL PLAN (2017)

4.19 Good design is essential to creating places, buildings, or spaces that work well for everyone, look good, last well and will adapt to the needs of future generation s. Policy DI of the Camden Local Plan (2017) confirms the Council will seek to secure high quality design that:

- "respects local context and character;
- preserves or enhances the historic environment and heritage assets in accordance with Policy D2 Heritage;
- is sustainable in design and construction, incorporating best practice in resource management and climate change mitigation and adaptation;
- is of sustainable and durable construction and adaptable to different activities and land uses;
- comprises details and materials that are of high quality and complement the local character ..."

4.20 The Council will preserve and, where appropriate, enhance Camden's heritage assets and their setting. Policy D2 confirms the Council " will not permit the loss of or substantial harm to a designated heritage asset, including conservation areas and Listed Buildings, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss".

4.21 Policy CCl of the Camden Local Plan (2017) confirms the Council will "require all development to minimise the effects of climate change and encourage all developments to meet the highest

feasible environmental standards that are financially viable during construction and occupation." Camden Council will, among other things:

- "promote zero carbon development and require all development to reduce carbon dioxide emissions through following the steps in the energy hierarchy ...
- expect all developments to optimise resource efficiency".

4.22 Policy CC2 of the Camden Local Plan (2017) sets out how the Council will promote sustainable design and construction. This includes "ensuring development schemes demonstrate how adaption measures and sustainable development principles have been incorporated into the design and proposed implementation".

4.23 Policy AI of the Camden Local Plan (2017) seeks to protect the quality of life of occupiers and neighbours of development. Camden Council will consider factors such as; visual privacy, outlook; sunlight, daylight and overshadowing; transport impacts; noise and vibration levels, and; odour, fumes and dust in the protection of the amenity of "communities, occupiers and neighbours" (Policy AI).

4.24 Policy A2 of the Camden Local Plan (2017) seeks to protect Camden's parks, open space sand other green infrastructure by resisting "development which would be detrimental to the setting of designated open spaces" .

5.0 FIRE SAFETY POLICIES

5.1 Buildings exceeding 18 meters in height pose significant challenges in terms of fire safety. One of the most critical distinctions from low-rise structures is the increased evacuation time required, particularly from the upper levels, compounded by the unavailability of lifts and escalators during fire emergencies. Additionally, ensuring adequate access for firefighters, who often need to operate within the building due to height restrictions on ladder usage, is crucial. Furthermore, the proximity of neighboring buildings introduces additional complexities that must be addressed to ensure comprehensive fire safety measures.

5.2 Fire propagation through an external cladding system can occur through cavities within the cladding or via the cladding material itself. Ignition sources may include flames emanating from windows or openings due to an internal building fire. Alternatively, external fire sources, such as radiant heat from neighboring buildings or nearby combustible materials, like refuse ignited by arson, can also trigger cladding fires.

KEY STANDARDS

5.3 First published in 1988, BR 135: Fire Performance of external thermal insulation for walls of multi-storey buildings responded to the increasing use of thermal insulation within refurbishment programmes on multi-storey residential tower blocks. When the document was produced, there was not yet any full-scale fire test available. Recommendations were therefore based on a single-faced large-scale test facility.

5.4 However, during the review of BR 135, several high-profile fires occurred that led to a review of the test methodology. Coupled with the growth of new design solutions, this suggested that a full-scale fire-test method was necessary to fully understand the overall fire performance of the complete system. As a result, the then Department of the Environment worked with industry to develop one test method, which was published in 1999.

5.5 The review process resulted in the publication of the second edition of BR 135 in 2003. This was accompanied by the full-scale fire test method from BRE Fire Note 9, named BS 8414-1: Fire Performance of External Cladding Systems – Part 1 Test Method for Non- Loadbearing External Cladding Systems Applied to the Face of the Building. This test methodology enables the overall fire performance of the system and its relevant components to be assessed in as close to typical

end-use conditions as possible.

5.6 Part 1 is applicable to systems fixed to a solid substrate. A Part 2 was introduced in 2013 for systems fixed to and supported by structural steel framework. As masonry substrate and structural steel frames react differently in fire situations, it is important to ensure the relevant test is used.

5.7 The Government announced earlier, in 2018, that they intended to restrict the use of combustible materials in the external walls of high-rise residential buildings. Following the consultation that was held in the summer, new regulations were published on 29th November 2018.

5.8 The Building (Amendments) Regulations 2018 implement the restrictions for buildings over 18m in height which contain residential spaces. The Building (Amendment) Regulations, SI 2018/1230 came into force on 21 December 2018. The amendment implements the promised ban on combustible cladding by prohibiting the use of combustible materials anywhere in the external walls of high-rise buildings over 18m above ground level, containing one or more dwellings.

5.9 The new text says:
Subject to paragraph (3), building work shall be carried out so that materials which become part of an external wall, or specified attachment, of a relevant building are of European Classification A2-s1, d0 or A1, classified in accordance with BS EN 13501- 1:2007+A1:2009 entitled 'Fire classification of construction products and building elements. Classification using test data from reaction to fire tests" (ISBN 978 0 580 59861 6) published by the British Standards Institution on 30th March 2007 and amended in November 2009.

5.10 BS EN 13501-1 defines the classes A1 and A2 as follows:

- Class A1 Will not contribute in any stage of the fire, including the fully developed fire
- Class A2 Will not significantly contribute to the fire load and fire growth in a fully developed fire

The characteristics "s" and "d" are defined as follows:

- s1 Weak or no smoke s2 Medium smoke
- s3 High smoke
- d0 No dripping at all
- d1 Slow dripping recorded d2 High dripping recorded.

5.11 In addition to the Building Regulation requirements, the January 2020 Ministry of Housing, Communities & Local Government (MHCLG) guidance note, advised Building Owners who have materials either below European Class A2-s3,d2 or without a BRE 135 test certificate on buildings over 18m to seek 'urgent professional advice on the measure(s) that need to be taken to ensure that the external walls meet an appropriate standard of fire safety'.

5.12 For new residential buildings of 18 metres or more (or where building work is carried out on existing residential buildings of 18 metres or more), the government has introduced an effective ban, through an amendment to Regulation 7 of the Building Regulations 2010, on the use of combustible materials in external walls and specified attachments (including balconies, etc.). The ban limits the use of materials in the external wall and specified attachments to products achieving a classification of Class A1 or A2-s1,d0, subject to a number of specific exceptions.

5.13 The Expert Panel advised that where Building owners are responsible for the safety of their buildings. They may currently be the 'Responsible Person' under the Regulatory Reform (Fire Safety) Order 2005. In future they are likely to be legal duty holders following the implementation of the proposals in the Hackitt Review. The Expert Panel's view is that building owners should not wait for regulatory changes to take action to ensure the immediate safety of residents.

5.14 In relation to Spandrel Panels, the January 2020 MHCLG guidance note, advised Building Owners that Spandrel panels (including window panels, infill panels, etc) are part of the external wall of the building. Therefore, the principles set out in the advice on external walls above apply.

OTHER REGULATIONS AND GUIDANCE

5.15 Building Safety Act 2022

In July 2020, In July 2020, the Government unveiled the Draft Building Safety Bill, marking a pivotal step towards comprehensive reforms within the building safety framework. Following extensive scrutiny in Parliament and collaborative efforts with industry stakeholders, the Bill successfully attained Royal Assent on April 28, 2022, officially becoming the Building Safety Act of 2022.

Representing the most significant reform of building safety regulations in recent history, the Building Safety Act 2022 not only amends existing legislation but also introduces novel requirements through secondary legislation.

This landmark legislation introduces sweeping reforms aimed at strengthening resident rights, powers, and protections, thereby bolstering the safety of homes nationwide. These transformative changes signify a substantial overhaul of prevailing regulations within the construction sector, promising enduring evolution. Moreover, the Act delineates explicit guidelines governing the construction and management of higher-risk buildings, underscoring a dedicated commitment to prioritizing the safety and peace of mind of their occupants.

5.16 The Building Safety Act applies to all new buildings, while including additional requirements for those classed as higher-risk buildings.

Higher-risk buildings are those in England that are classed as being:

- At least 18 metres in height, or
- At least 7 storeys high, and
- Which contain at least two residential units, including hospitals, care homes and student Accommodation

Hotels, prisons, and military accommodation are not classed as higher-risk buildings.

5.17 The Birkenhead Estate qualifies as High-risk buildings (HRB) due to their seven-storey height and multiple residential units.

For guidance on complying with the Building Safety Act, refer to the accompanying Fire Statement by independent Fire Consultant Urban Change.

5.18 Given Birkenhead Estate fall under HRB – The application will need to be processed via Building Safety Regulator, Gateway 1 Application.

> *The policy intent behind Planning Gateway One (PGO) was introduced into Planning Practice Guidance by the Department of Levelling Up, Housing and Communities (DLUHC) in June 2021. 'The changes are intended to help ensure that applicants and decision-makers consider planning issues relevant to fire safety, bringing forward thinking on fire safety matters as they relate to land use planning to the earliest possible stage in the development process and result in better schemes which fully integrate thinking on fire safety'.*

The purpose therefore is to ensure that fire safety is thought about at the earliest stage possible and not end up being overlooked at planning permission stage and baked into any development when it could then prove problematic trying to change the design at a later stage. A development must pass PGO to progress to Gateway 2 (before building work starts).

Approved Document B – 2019 edition incorporating 2020 and 2022 amendments.

5.19 Approved Document B of the Building Regulations for England and Wales, Section 2 of the Technical Handbook Scotland, and Technical Booklet Part E for Ireland all make reference to the requirements for the safe design of high-rise buildings. Approved Document B4, Section 12 states: "The external envelope of the building should not provide a medium for fire spread if it is likely to be a risk to health or safety. The use of combustible materials in the cladding system and extensive cavities may present such a risk in tall buildings."

5.20 The external walls of the building shall adequately resist the spread of fire over the walls and from one building to another, having regard to the height, use and position of the building in order to meet Requirement B4(1) of the Building Regulations.

5.21 The external walls of the building should not provide a medium for fire spread if that is likely to be a risk to health and safety.

5.22 Building work on buildings undergoing remediation must be carried out so that only materials which achieve European Classification A1 or A2-s1, d0, classified in accordance with BS EN 13501-1:2007+A1:2009 entitled "Fire classification of construction products and building elements. Classification using test data from reaction to fire tests", become part of an external wall or specified attachment (as defined in Regulation 2 - e.g. balconies) unless covered by one of the exemptions in the regulations. This means that materials which are already part of the external wall, or are existing specified attachments, and are not being replaced are not covered by the ban (unless there is a change of use) as set out in Statutory Instrument 2018/1230. However, during this process care must be taken to ensure that the building is no less compliant in relation to building regulation requirements than before the work was carried out (e.g. cavity barrier). Note: RBKC requirement is Class A1.

5.23 The external surfaces (i.e. outermost external material) of external walls must achieve Class A2-s1, d0 or better.

5.24 Cavity barriers shall be provided in accordance with Approved Document B guidance and meet guidance set out on Fire Statements and "Fire Risk Appraisal of External Wall Construction" FRAEW.

5.25 The BR135 / BS8414 tests deal solely with the spread of fire once it has entered the cavity. Hence, the requirements for cavity barriers in accordance with Section 9 of AD B2 are required in all cases including around openings in the façade.

5.26 BCA Guidance Note 18:

Following the completion of a number of construction projects not compliant with Approved Document B or the guidance contained in BR 135, the Building Control Alliance (BCA) published a technical guidance note outlining the procedure for buildings exceeding 18m in height, and addressing common misconceptions relating to combustibility and surface spread of flame. A class 0 classification under Approved Document B does not imply any resistance to combustibility – it is solely a measure of surface spread of flame and heat release during a fire. As a publicly available document, guidance note 18 is a useful tool to mitigate risk for everyone involved in the construction process.

6.0 PLANNING HISTORY

The seven-storey blocks comprising the Birkenhead Street Estate are positioned adjacent to each other, defining the western boundary of Sub Area 4. The northernmost block, facing St Chad's Street, features open balconies and projecting stairwells, creating a distinctive architectural profile. In contrast, the southern elevation of the slab block facing Argyle Street showcases regular fenestration and recessed balconies. Surrounding the estate is a pale orange brick wall with extensive glazing, and Birkenhead Street, now a private road, traverses through the estate. Gated entries to these blocks, situated on Birkenhead Street and at the Argyle Street end, were erected during the late 1980s.

The original brick finish has undergone a transformation, replaced by an External Wall Insulation (EWI) render system. The exact installation date of this retrofit remains unknown; however, photographic evidence from 1988 suggests it occurred post that year, as depicted in Figure 4 below.

Figure 4 – Birkenhead Street Estate Block 1988

7.0 CONSERVATION APPRAISAL

The Birkenhead Estate is located within the Conservation Area – CA25 Kings Cross St Pancras. Refer to Camden Conservation Area Statement 22 document for full references.

CA25 – is formed by 4 Sub Areas:

Sub Area 1: St Pancras Gardens – Encompassing the northern expanse of the Conservation Area, this sub area extends over the elevated railway lines north of St Pancras Station. Focused around St Pancras Gardens, it features a diverse blend of residential and institutional spaces. Notably, the northern sector hosts clusters of hospital and educational structures, contributing to its distinctive character.

Sub Area 2: King's Cross/St Pancras - Serving as the heart of the King's Cross Conservation Area, Sub-area 2 encapsulates the iconic stations and stretches westward to Midland Road,

eastward to York Way, northward to Goods Way, and southward to Euston Road. Additionally, it encompasses the southern section of Camley Street, north of Goods Way, further enriching its dynamic character.

Sub Area 3: Euston Road – Encompassing the southern stretch of Euston Road along with its adjacent streets and structures that share a visual or physical link to this arterial thoroughfare. Notably presided over by the grandeur of King's Cross and St Pancras stations, alongside the distinguished St Pancras Chambers from Sub Area 2, it accommodates an array of retail outlets, hotels, and landmarks such as Camden Town Hall and its affiliated offices.

The proposed site falls under Sub Area 4 – Gray's Inn Road.

This sub area comprises the area bounded by Pentonville Road and King's Cross Road to the north and east, Swinton Street to the south and the Birkenhead Street Estate to the west. King's Cross Road and Gray's Inn Road are principal roads linking King's Cross to the City of London. These roads are lined with a mix of early 19th century terraces and larger scale institutional buildings.

West of Gray's Inn Road

The southern side of Chad's Street, particularly adjacent to the Riverside Block, exhibits a fragmented character, lacking consistency in style, scale, or building line. Notably, Nos. 13 and 14 St Chad's Street, both grade II listed properties dating back to circa 1827, exemplify this disparity. These three-storey structures, complete with basements, feature architectural details reminiscent of the terraced buildings on the north side. Notable elements include square-headed windows and iron balconies at the first-floor level.

The Site

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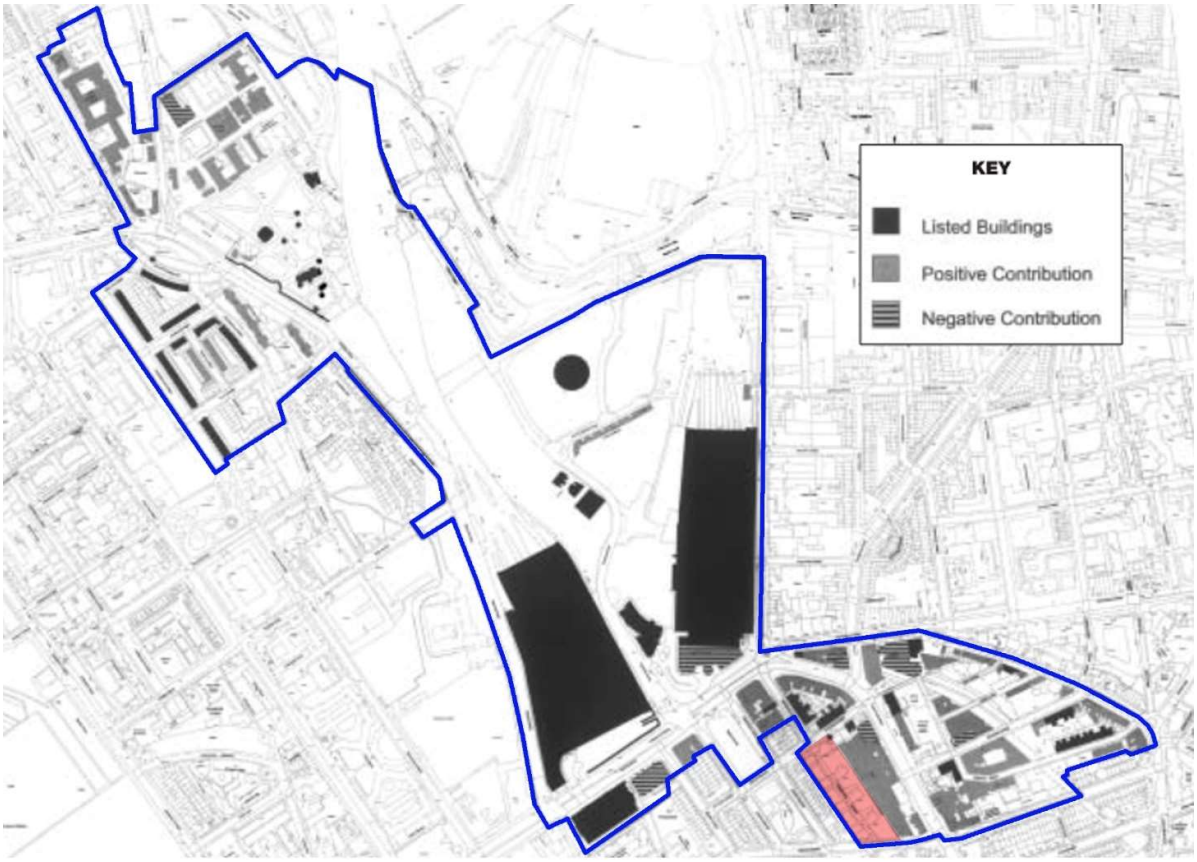

Figure 5 – Map from Camden Conservation Area Statement 22- CA25 King's Cross St Pancras. In addition to preset Key/ legend on Map. The proposed site is identified as pink shaded area.

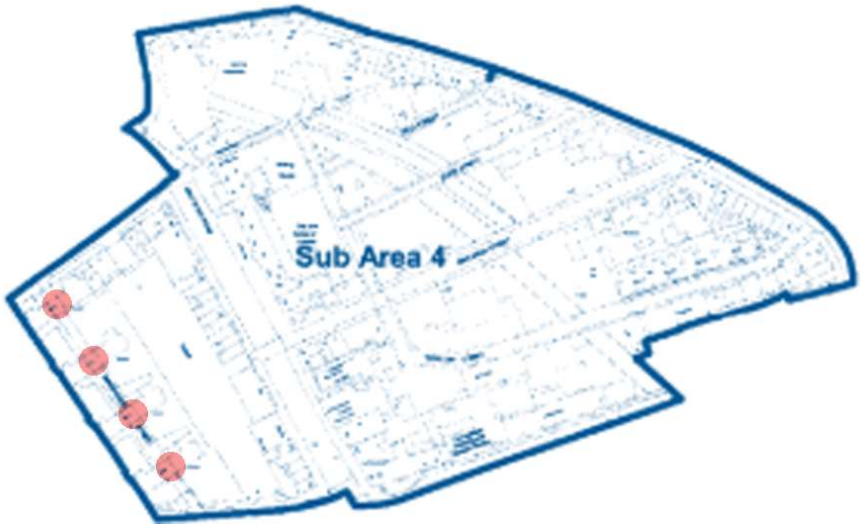

Figure 6 – Sub Area 4 Map from Camden Conservation Area Statement 22- CA25 King's Cross St Pancras. The proposed 4 blocks forming the Birkenhead Estate is identified as 4 pink dots.

7.1 Assessment of the impact of the proposal on the significance of a Conservation Area.

The original brick finish has been replaced by an External Wall Insulation (EWI) render system. Although the exact date of this retrofit is unknown, photographic evidence from 1988 suggests it occurred after that year, as shown in Figure 4, section 6.0.

Our proposal aims to remove the existing combustible EWI system and replace it with a fire-compliant render system that matches the existing color and finish.

Architectural Design & Materials

Building Appearance and Aesthetics: The proposal ensures that the building's appearance remains harmonious with the existing structures in the Conservation Area.

Sympathetic Design: The cladding remediation respects the historic character of the area, maintaining an aesthetic appearance that matches the existing features. All original features are retained.

Materials: Materials used for the finish will match the original, aligning with the architectural style of the building in Conservation Area.

Scale and Massing
The scale and massing of the building are not affected by the proposal. There will be no alterations to the existing openings or the overall height/parapet level. All windows and doors will be retained in their current form.

Key Principles of the Proposal

- Maintain Existing Character: The proposal retains the building's character with an unaltered external insulated render system application.
- Consistent Visual Appearance: The new render system will have the same visual appearance as the existing one.
- Aluminum Over-Sill: An aluminum over-sill will be installed over the existing concrete sill to support the increased wall depth at window openings. The RAL color to match the existing concrete sill, in a matte finish.
- Cladding Finish: The finish for each type of cladding (smooth, matte, stippled) will match the existing finishes.
- Neat Finish: Existing building features within the EWI system will be removed to create a sharp, neat finish.

Conclusion

The proposed development has been carefully assessed, designed, and implemented with a thorough understanding of the Conservation Area's significance, while also addressing the primary objective of upgrading fire compliance for residents' safety. The proposal preserves and enhances the area's character, ensuring that new interventions are sympathetic to the historic environment. This careful balance helps maintain the area's heritage value while accommodating necessary compliance upgrades.

8.0 HERITAGE ASSESSMENT

All the buildings on Birkenhead Estate are not on the local heritage list.

The nearest Grade II building is on southern side of Chad’s Street Nos. 13 and 14, dating back to c1827.

9.0 APPLICATION PROPOSALS

Principle of development

9.1 In January 2020 the Ministry of Housing, Communities & Local Government (MHGLC) published the 'Advice for Building Owners of Multi-storey, Multi-occupied Residential Buildings' which consolidated previous guidance notes in relation to the measures Building Owners should take to review External Wall Insulation systems and Spandrel Panels to their residential blocks and to assess the surety of their fire safety, and the potential risks to residents of external fire spread. Further guidance and clarification were provided within The Building Safety Act 2022.

9.2 The objective of the proposed works is to remove the existing combustible EWI system and replace them with new to ensure the optimum performance and safety of the external wall finishes. Render colour to match existing.

9.3 The scope of works required to achieve this is:

- Remove the existing External Wall Insulation (EWI) build-up consisting of Acrylic render and Expanded Polystyrene (EPS) Insulation to all 4 Blocks.
- Remove existing fire barriers to enable fully compatible replacement barriers to be installed

9.4 The proposed External Wall Insulation (EWI) system will meticulously replicate the existing location, layout, arrangement, and color scheme, ensuring that the distinctive characteristics of the buildings remain unchanged post-installation of the new cladding/render system. To enhance maintenance ease and longevity, select features (beads) within the EWI will be tactfully removed to achieve a streamlined finish.

The current EWI build-up predominantly comprises approximately 5mm Acrylic render and 60-65mm EPS Insulation, resulting in a U value of 0.41W/m²K using EPS insulation. However, transitioning to mineral wool of equivalent thickness would yield a slightly reduced U value of 0.47W/m²K. As part of our commitment to best practices, we advocate for a 90mm thick insulation, which would significantly improve the U Value to 0.34 W/m²K. This enhancement aligns seamlessly with both the Council's objectives and Camden's Climate Pledge.

The adoption of 90mm insulation necessitates extending the window sills. This can be accomplished by installing an aluminum over-sill atop the existing concrete. This adjustment will have minimal to no visual impact on the overall aesthetic of the development. The aluminum over-sill, matching the existing concrete cill in color, serves to accommodate the increased wall depth at window opening interfaces.

10.0 DESIGN, LAYOUT AND AMMOUNT OF DEVELOPMENT

10.1 The existing buildings will remain as residential blocks of flats and therefore the use is unchanged.

10.2 Building Appearance and Aesthetics: Only change to the fixtures and fittings of the building is the extension to the current window cill depth to compensate the compliant insulation thickness.

Therefore, the proposed materials and works are to:

- Maintain the existing building character unaltered for the external insulated render system.
- Have the same visual appearance.
- The aluminum over-sill to be installed over the existing concrete to support in the increased wall depth at window opening interface.
- The RAL colour would be to match existing concrete cill in matt finish.
- Finish for each type of cladding type (smooth/ matt/stippled as existing).
- Remove the existing building features incorporated within EWI system to create a sharp neat finish.

10.3 Area:

Existing Site Wall Area (EWI) for each block is as follows:

Riverside	2147 sqm
Riverfleet	2162 sqm
Fleetway	2165 sqm
Riverfield	2128 sqm
Total:	***8602 sqm**

**Total area includes the window and door openings.*

11.0 FULL SCOPE OF WORKS:

The proposed remediation solution will need to comply with the current Building Regulations and The Building Safety Act 2022. To achieve this the following requirements will be considered for each element of the façade during the design development phase to achieve compliance:

11.1 Fire Rating:

- The Classification of the new cladding will be either A1 or A2 for external surface spread of flame and fire spread and this will be achieved by choosing a suitable system material as detailed in section below.

11.2 Cladding:

- All cladding materials, fixtures and fixings to have certification, details to be supplied as design develops.
- Details of cavity barriers and fire stopping to be confirmed as the design develops, however the intention is to achieve an A2 rating in terms of the materials to be used behind the render coat.
- Details of the insulation to be confirmed as the design develops, again with the intention of achieving an A2 rating.

11.3 Parapet Copings, balconies flashing, window cills, window returns, and any aluminium pipework and hoppers:

- All the above elements to be adapted to the new EWI build-up and to achieve a minimum overhang of 45mm. Aluminium Coated sheet/ strip. Finish: Polyester Powder Coated. Finished colour: to match existing.

11.4 Lightning Protection:
Existing Lightning Protection will be redesigned to suit the new cladding build-up arrangements and materials.

12.0 MATERIALS:

12.1 Based on the design consideration and compliance requirements, as outlined in Sections 4, above, the design team's specification ensures that all replacement materials meet or exceed Building Regulation requirements and are amongst the highest quality available.

12.2 Rockwool has been selected as the preferred supplier of all components for replacing the EWI render system, being one of the principle suppliers of fire-resistant products, and one of the most respected and long-established manufacturers on the market. None of Rockwool's products have been associated with the issues regarding fire resistance of cladding materials.

12.3 In our proposal, we aim to utilize the following product, or its equivalent, as the benchmark for the proposed render system

12.4 **SPS ENVIROWALL** system to replace the EPS (expanded polystyrene) EWI system using ROCKWOOL insulation and Silicone Renders which attract less dirt and traffic build up. The system if fully certified. Its durability is 30 years.

Silicone Primer – SPS Envirowall Silicone Primer Ref.ESPS/S-P/G/Cs. Colour to match existing

Silicone Topcoat – SPS Envirowall Silicone Topcoat Ref.ESPS/S-TC/Cs. - Colour to match existing - Grain size 1.5mm

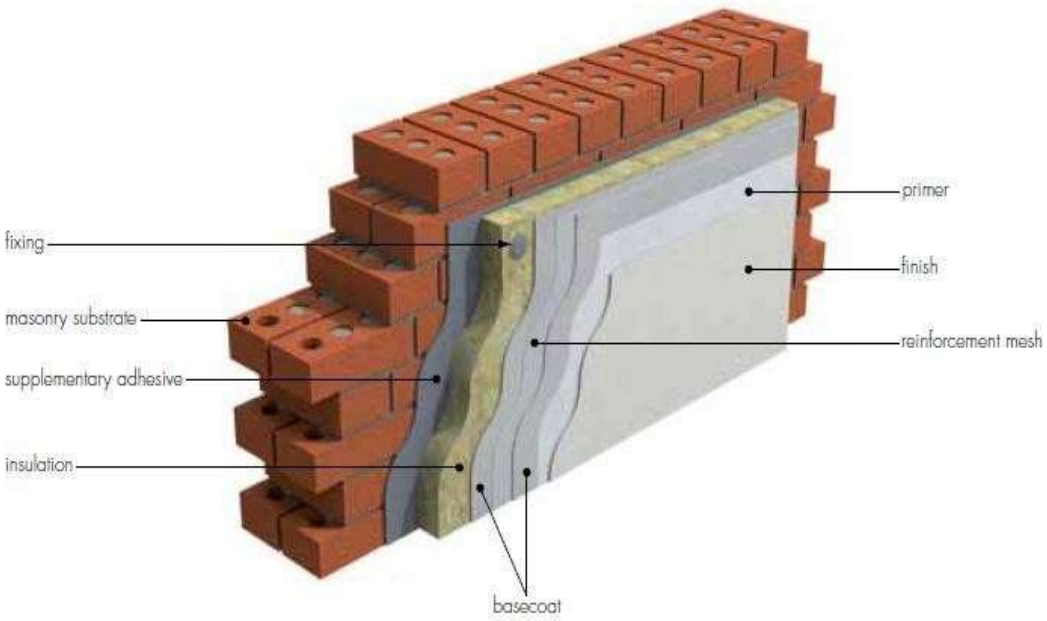

Figure 7 – SPS Envirowal Wall System 1 for existing masonry wall

Figure 8 – Picture sample of SPS Envirowall System 1 for existing masonry wall

Figure 9 – Aluminium over sills over existing concrete sill to accommodate insulation thickness

12.5 Existing Fire Barriers to be replaced with **ROCKWOOL CAVITY FIRE BARRIERS**.

Figure 10 – Rockwool Cavity Firebarrier

Design & Installation of **Rockwool Open State Cavity Fire Barriers**, horizontally at the floor slab and Closed State Fire Barriers, vertically at the party wall. Also Open & Close State Cavity Fire Barriers will be installed around the balcony and windows. All works carried out to ensure compartmentation within the external render system as per current Building Regulations.

12.6 **Existing EPS** - **Expanded Polystyrene** external wall insulation to be replaced with: External wall insulation system using dual density mineral wool insulation with a silicone topcoat textured finish.

12.7 Design & Installation of a Mineral Wool External Wall Insulation with a A2 (-s1, d0) overall system classification.

12.8 Installation of a 90mm Rockwool insulation (A1 Euro Class as part of the EWI system).

12.9 Cover Flashings (Parapet Copings):

- Skyline Coping System by Alumasc Exterior Building Products Ltd, or equal and approved.
- Polyester powder coated to BS 6496
- Colour: to match existing.
- Wall/parapet thicknesses: as existing
- New (replacement) copings are to provide a better overhang than the existing copings, to achieve a minimum overhang of 45mm and are to be adapted to the new EWI build-up.

12.10 Flashings/ Weatherings/ Sills/ Aluminium Pipework to replace existing elements:

- Aluminium: Coated sheet/ strip.
- Alloy designation: EN AW-1050A.
- Finish: Polyester Powder Coated.
- Finished colour: to match existing.
- Projection: a minimum of 45mm projection beyond face of the finished wall render system, as determined by EWI replacement details.
- Angle sill to act as pigeon deterrent: 45 degree downward slope.

13.0 Sustainability - Design & Approach

Enhanced Sustainable Commitment for Cladding Remediation Projects

Given the nature of our project scope in cladding remediation and the high compliance demands, our commitment extends to selecting sustainable and recyclable materials wherever feasible.

Here's how we ensure sustainability at Birkenhead Estate:

13.1 Sustainable Material Selection

- We prioritize the use of materials that are not only compliant but also environmentally friendly.
- Mineral Fibre Insulation: This insulation is crafted from rock or basalt, which are abundant and renewable resources. Mineral fibre insulation embodies sustainability at its core, significantly reducing the environmental impact.
- Rockwool Insulation and Silicone Renders by SPS Envirowall: These materials are chosen for their superior sustainability and performance. Rockwool insulation is highly efficient and recyclable, providing excellent thermal and acoustic properties. Silicone renders used in our projects attract less dirt and traffic buildup, ensuring longer-lasting cleanliness and reduced maintenance.

13.2 Durability and Certification

- The insulation systems we specify are not only sustainable but also robust and fully certified:
- Long-Term Durability: The insulation systems we use, such as those by SPS Envirowall, come with a durability rating of 30 years, ensuring long-term performance and reliability.
- Full Certification: Our selected systems are fully certified, meeting all necessary compliance and environmental standards. This ensures that our projects not only perform well but also adhere to stringent regulatory requirements.

By integrating these sustainable practices and materials into our cladding remediation project, we demonstrate our dedication to environmentally responsible construction practices, ensuring that our work contributes positively to both the built environment and the natural world.

13.3 Thermal performance

The current EWI build-up predominantly comprises approximately 5mm Acrylic render and 60-65mm EPS Insulation, resulting in a U value of 0.41W/m²K using EPS insulation. However, transitioning to mineral wool of equivalent thickness would yield a slightly reduced U value of 0.47W/m²K. As part of our commitment to best practices, we advocate for a 90mm thick insulation, which would significantly improve the U Value to 0.34 W/m²K. This significant improvement to the thermal efficiency of buildings helps reduce CO2 emissions and energy consumption.

Proposed system have been rigorously tested and certified by leading industry organizations like the British Board of Agrément (BBA), CERAM, and the Building Research Establishment (BRE) (NBS Source). These certifications ensure that their products meet high standards for performance and sustainability.

13.4 Compliance with Policies

Our sustainable practices and material choices align with key policies and standards:

Paragraph 56 of the NPPF: Our approach is in line with the National Planning Policy Framework, which emphasizes sustainable development and high-quality design.

Regional Policy 5.3 of the London Plan: We adhere to the London Plan's policies, particularly regarding fire safety and thermal performance. The use of Rockwool insulation enhances fire resistance, providing an added layer of safety, while also offering superior thermal and acoustic properties.

13.5 Sustainable Site Management

Managing a construction site sustainably involves practices that minimize environmental impacts and promote resource efficiency. Key approaches include:

<u>Erosion and Sediment Control</u>

- Preventing soil erosion and managing runoff is crucial for protecting local waterways from sedimentation and pollution.

<u>Waste Reduction and Recycling</u>

Reducing, reusing, and recycling construction waste is fundamental. Strategies include:

- On-site Sorting: Separating waste materials such as wood, metal, concrete, and plastics for recycling.
- Reuse of Materials: Repurposing materials from demolition or other projects.
- Recycling Partnerships: Collaborating with local facilities to process and reuse construction waste.

These practices minimize landfill use, conserve resources, and reduce project costs.

Protecting Existing Vegetation

Preserving existing trees and vegetation benefits the environment by reducing habitat destruction, promoting biodiversity, and enhancing site aesthetics. Key practices include:

- Tree Protection Zones: Establishing zones around existing vegetation to prevent damage.
- Minimizing Land Disturbance: Designing the site to minimize clearing of vegetation and soil disturbance.

By implementing erosion and sediment control, waste reduction and recycling, and vegetation protection, construction projects can enhance their environmental performance and promote sustainable development.

14.0 PROJECT ANALYSIS

ACCESS, LANDSCAPING AND LIGHTING

14.1 Access to the buildings is facilitated from St Chad's Street to the north and Argyle Street to the south. The blocks are interconnected through a central thoroughfare known as Birkenhead Street and internal access to each block is granted through a main entrance leading to a communal lobby. Throughout the construction phase, all existing premises will remain fully operational, and access provisions will remain unchanged upon completion of the works.

Figure 11 – Access off St Chad's Street & Fire Hydrant

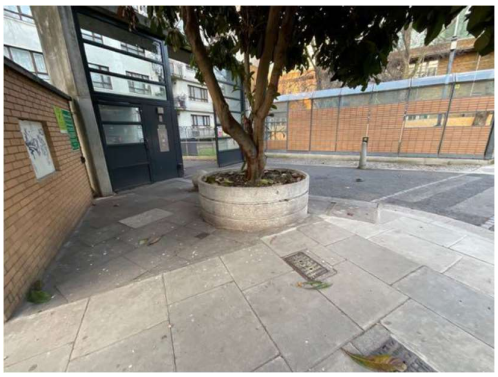

Figure 12 Access off Argyle Street & Fire Hydrant

14.2 Access to parking spaces for vehicles will remain unchanged, with direct entry to the site via St Chad's Street to the north and Argyle Street to the south. No modifications are planned for existing on-street car parking or vehicular access routes due to these works.

14.3 The proposed remedial works will not lead to an increase in the number of building users, and the development will maintain the existing vehicular and transport links without alteration.

14.4 The building allows for level access, and no alterations are planned for the horizontal access leading to the site area. Door access provisions remain unchanged as part of the proposed works.

14.5 Vertical access is currently available via the internal passenger lift and stairways. No work is proposed to the vertical access provisions throughout the site area.

14.6 Existing means of escape will remain as per the existing facilities.

14.7 No change to external lighting is proposed as part of these works.

15.0 CONCLUSION

15.1 The preceding information highlights the deficiencies in the current EWI system, delineates the statutory requirements and guidance from MHCLG for compliance, and proposes a design solution for its replacement.

15.2 Achieving Building Regulation Approval for the replacement EWI system and cladding panels is mandatory to ensure statutory and compliance requirements are met. The design intent is to attain either an A1 or A2 design solution. The proposed new EWI silicon render system fully aligns with the necessary compliance standards and regulations.

15.3 The recladding/rendering process should not pose any harm to residents or occupants of neighboring properties. Additionally, there are no significant implications regarding flood risk, and the works will not result in harm or loss of trees.

15.4 With these considerations in mind, we respectfully request the granting of planning permission for the proposed cladding remediation project.

15.0 Appendix 1: PICTURES

Block Riverside : 25 Riverside Birkenhead Street, London, WC1 8BP

Figure 13 – Northwest Elevation (front)

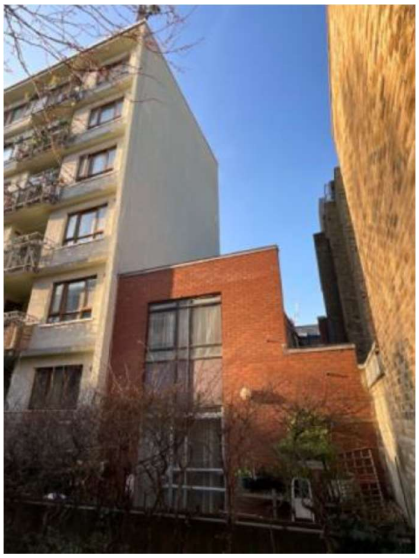

Figure 14 – Northeast Elevation

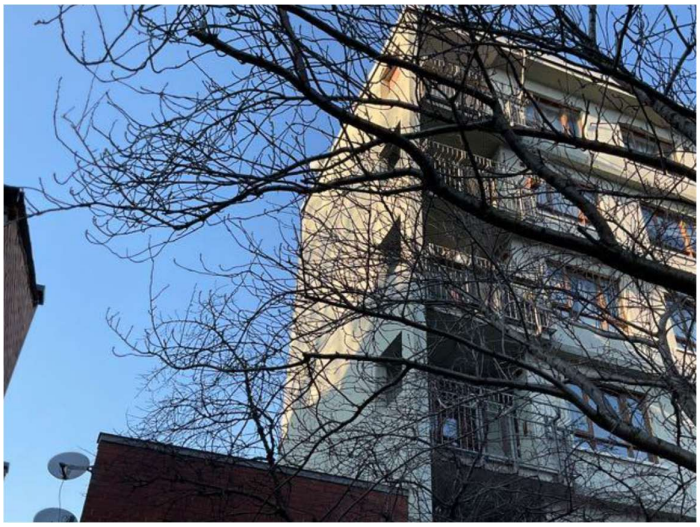

Figure 15 – Southwest Elevation

Figure 16 – Southeast Elevation

Block Riverfleet : 1-24 Riverfleet Birkenhead Street, London, WC1H 8BP

Figure 17 – Northwest Elevation

Figure 18 – Northeast Elevation

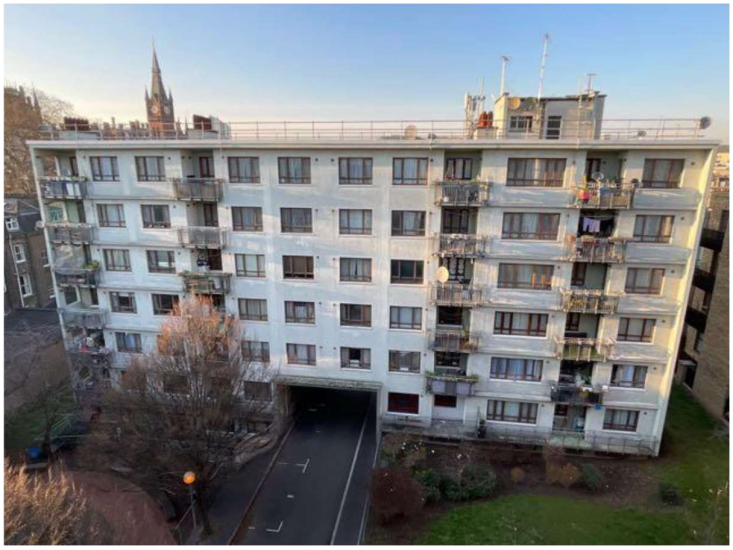

Figure 19 – Southeast Elevation

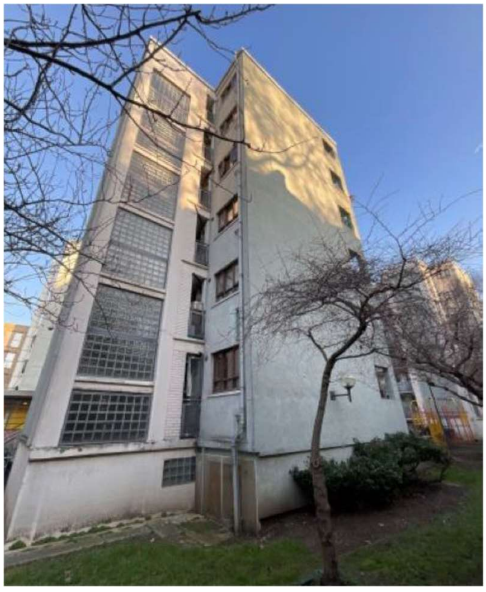

Figure 20 – Southwest Elevation

Block Fleetway : 1-24 Fleetway Birkenhead Street, London, WC1H 8BP

Figure 21 – Northwest Elevation

Figure 22 – Northeast Elevation

Figure 23 – Southeast Elevation

Figure 24 – Southwest Elevation

Block Fleetfield : 1-24 Fleetfield Birkenhead Street, London, WC1H 8BP

Figure 25 – Northwest Elevation

Figure 26 – Northeast Elevation

Figure 27 – Southeast Elevation

Figure 28 – Southwest Elevation